This application has been reviewed in light of the Office Action dated April 13, 2006. Claims 16-29 are presented for examination, of which Claims 16, 19, 22 and 26 are in independent form. Claims 16, 19, 22 and 26 have been amended to define still more clearly what Applicant regards as his invention. Favorable reconsideration is requested.

Claims 16-24 and 26-28 were rejected under 35 U.S.C. § 103(a) as being unpatentable over United States Patent No. 6,809,834 (Sato) in view of U.S. Patent No. 6,330,374 (Yamaguchi). Claims 25 and 29 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Sato and Yamaguchi, in further view of United States Patent No. 5,625,466 (Nakajima).

As shown above, Applicant has amended independent Claims 16, 19, 22 and 26 in terms that more clearly define what he regards as his invention. Applicant submits that these amended independent claims, together with the remaining claims dependent thereon, are patentably distinct from the cited prior art for at least the following reasons.

Claim 16 is directed to a printer including a control unit having a first memory for storing image data generated based on print data received from an external apparatus, and an engine unit having a second memory for storing the image data received from the control unit and a print engine for printing the image data stored in the second memory. The control unit includes a transfer unit for transferring the image data read from the first memory to the second memory. The transfer unit includes a third memory for storing the image data read from the first memory, and reads rotated image data from the third memory and transfers the rotated image data to the second memory without transferring the rotated image data to the first memory, or reads

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the image data, without rotation, from the third memory and transfers the read image data to the second memory without transferring the read image data to the first memory, depending on a print sheet.

Among other notable features of Claim 16 is that the transfer unit includes a third memory for storing the image data read from the first memory, and reads rotated image data from the third memory and transfers the rotated image data to the second memory without transferring the rotated image data to the first memory, or reads the image data, without rotation, from the third memory and transfers the read image data to the second memory without transferring the read image data to the first memory, depending on a print sheet.

Sato, Yamaguchi and Nakajima, alone or in combination, are not seen to teach or suggest the apparatus as defined by Claim 16, particularly with respect to use of a third memory for storing image data read from the first memory.

Sato relates to an image forming apparatus including an image forming section, a page memory for storing image data to be transferred to the image forming section, and a DMA controller. The DMA controller continuously transfers a plurality of words of image data with the same row address from the page memory to the image forming section. Sato discusses the use of the DMA controller to transfer image data from the page memory to a vertical/horizontal conversion, which outputs vertical/horizontal converted image data. The DMA controller returns the converted image data to the same addresses of the page memory by DMA transfer. Subsequently, the DMA controller transfers the converted image data from the page memory to a plotter in a rotated condition.

Since Sato discusses reading the image data from the page memory and, after

rotation processing, sending the rotated image back to the page memory, the page memory of Sato cannot be re-used until the resulting image has been transferred from the page memory to the plotter. Nothing has been found in Sato that would teach or suggest a transfer unit that "includes a third memory for storing the image data read from the first memory, and reads rotated image data from the third memory and transfers the rotated image data to the second memory without transferring the rotated image data to the first memory, or reads the image data, <u>without rotation</u>, from the third memory and transfers the read image data to the second memory without transferring the read image data to the first memory, depending on a print sheet," as recited in Claim 16 (emphasis added).

     The disclosures of Yamaguchi and Nakajima do not remedy the deficiencies of Sato.

     Yamaguchi relates to a digital copier and method for processing images in which the images are manipulated and processed utilizing smaller blocks of the image. Yamaguchi discusses a device 96 for reading image data written to a buffer 98 from a scan unit 24, and writing processed data to a DMA buffer 100. The processed data, which may be rotated or flipped data, is transferred to a memory 16 over a bus 44 using a DMA operation. In order to print data, the image data is read from the memory 16 and written to a DMA buffer 80. The image is processed as needed by a device 92, written to a buffer 94 and transferred to a plot unit 26 for printing. Nothing has been found in Yamaguchi that would teach or suggest a transfer unit that "includes a third memory for storing the image data read from the first memory, and reads rotated image data from the third memory and transfers the rotated image data to the second memory without transferring the rotated image data to the first memory, or reads the image data,

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<u>without rotation</u>, from the third memory and transfers the read image data to the second memory without transferring the read image data to the first memory, depending on a print sheet," as recited in Claim 16 (emphasis added).

Nakajima relates to an image forming apparatus that detects the size and direction of a document on a platen, and executes image processing depending on the detected direction. Nothing in Nakajima has been found to teach or suggest a transfer unit that "includes a third memory for storing the image data read from the first memory, and reads rotated image data from the third memory and transfers the rotated image data to the second memory without transferring the rotated image data to the first memory, or reads the image data, <u>without rotation</u>, from the third memory and transfers the read image data to the second memory without transferring the read image data to the first memory, depending on a print sheet," as recited in Claim 16 (emphasis added).

Therefore, even if Sato and Yamaguchi or Sato and Nakajima were combined in the manner suggested by the Examiner, assuming such a combination would even be permissible, the result would not meet the terms of Claim 16.

A review of the other art of record has failed to reveal anything which, in Applicant's opinion, would remedy the deficiencies of the art discussed above, as a reference against Claim 16.

Independent Claim 19 is directed to a method in accordance with Claim 16. Applicant submits that the foregoing remarks in support of Claim 16 apply equally to Claim 19. Therefore, Applicant submits that independent Claim 19 is allowable and respectfully requests same.

Claim 22 is directed to a printer including a control unit having a first memory for storing image data generated based on print data received from an external apparatus, and an engine unit having a second memory for storing the image data received from the control unit and a print engine for printing the image data stored in the second memory. The control unit includes a transfer unit for transferring the image data read from the first memory to the second memory. The transfer unit includes a third memory for storing the image data read from the first memory, and reads rotated image data from the third memory and transfers the rotated image data to the second memory without transferring the rotated image data to the first memory if printing is performed on a landscape print sheet, and reads the image data, without rotation, from the third memory and transfers the read image data to the second memory without transferring the read image data to the first memory if printing is performed on a portrait print sheet.

For substantially the same reasons discussed above with respect to Claim 16, Applicant submits that neither Sato, Yamaguchi or Nakajima, either alone or in any permissible combination (if any), teaches or suggests a transfer unit that "includes a third memory for storing the image data read from the first memory, and reads rotated image data from the third memory and transfers the rotated image data to the second memory without transferring the rotated image data to the first memory if printing is performed on a landscape print sheet, and reads the image data, without rotation, from the third memory and transfers the read image data to the second memory without transferring the read image data to the first memory if printing is performed on a portrait print sheet," as recited in Claim 22 (emphasis added).

A review of the other art of record has failed to reveal anything which, in Applicant's opinion, would remedy the deficiencies of the art discussed above, as a reference

against Claim 22.

Independent Claim 26 is directed to a method in accordance with Claim 22. Applicant submits that the foregoing remarks in support of Claim 22 apply equally to Claim 26. Therefore, Applicant submits that independent Claim 26 is allowable and respectfully requests same.

The other claims in this application are each dependent from one or another of the independent claims discussed above and are therefore believed patentable for the same reasons. Since each dependent claim is also deemed to define an additional aspect of the invention, however, the individual reconsideration of the patentability of each on its own merits is respectfully requested.

In view of the foregoing amendments and remarks, Applicant respectfully requests favorable reconsideration and early passage to issue of the present application.

Applicant's undersigned attorney may be reached in our New York office by telephone at (212) 218-2100. All correspondence should continue to be directed to our below listed address.

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